Louisiana Department of Environmental Quality (LDEQ)
Office of Environmental Services

STATEMENT OF BASIS

Pentair Pump Group Inc
Pentair Pump Group Inc - Delta Environmental Products, Denham Springs Operations
Denham Springs, Livingston Parish, Louisiana
Agency Interest Number: 80537
Activity Number: PER20080001
Proposed Permit Number: 1740-00014-V4

I. APPLICANT

Company:
Pentair Pump Group Inc - Delta Environmental Products,
Denham Springs Operations
1101 Myers Markway
Ashland, Ohio 44805-0000

Facility:
Pentair Pump Group Inc – Delta Environmental Products
8275 Florida Blvd
Denham Springs Livingston Parish, Louisiana
Approximate UTM coordinates are 699,396 kilometers East and 3,373,999 kilometers North, Zone 15

II. FACILITY AND CURRENT PERMIT STATUS

Pentair Pump Group Inc – Delta Environmental Products, Denham Springs Facility is a fiber glass tank manufacturing plant located at 8275 Florida Blvd., Denham Springs, Livingston Parish, Louisiana. The facility was constructed by Pentair Pump Group Inc – Delta Environmental Products and has been in operation since 1984.

Pentair Pump Group Inc – Delta Environmental Products manufactures molded fiberglass products such as septic tanks, aeration tanks, and piping. The fiberglass manufacturing process employed is an open mold spray lay-up process. The open mold process uses non-atomized mechanical spraying and chopping equipment for depositing the resin and glass fiber reinforcement. The resin mix is merged with the cut strips of glass fiber to pre-coat the fibers before being deposited onto the molded surface. The process is repeated until the desired thickness is obtained. A gel coat may be applied to the mold prior to fabrication to produce a more desirable surface finish. During the open air curing process of the fiberglass products, styrene in the resin is released. Other emissions are fugitive VOCs and

particulate emissions (PM_{10}) from painting, and particulate emissions (PM_{10}) from sandblasting and grinding operations. Most of the grinding is conducted indoor in two enclosed areas one within the main manufacturing building and the other within its extension. Air from the first area is routed through an air handling system, thereby eliminating release of particulate matters (PM_{10}) to the atmosphere. Air, Particulate matters (PM_{10}) emissions, from the second grinding area is released through the stack of the cartridge filter fitted on the Filtration System Vent Stack below (EQT002), with emission reduction efficiency of 99%. However, some grinding takes place outdoors and is covered by the permitted Grinding Operations (FUG 003).

Emissions from the facility originate mainly from the fiberglass products manufacturing and related activities through the building vents (capped at 41.32 tons/yr).

III. PROPOSED PROJECT/PERMIT INFORMATION

Application

A permit application was submitted on October 31, 2008 requesting a Part 70 operating permit renewal and modification for the Pentair Pump Group Inc – Delta Environmental Products along with supplemental information received on December 19, 2008.

Project

Pentair Pump Group Inc – Delta Environmental Products proposes to renew the permit for the subject facility. The facility also proposed to modify the fiberglass manufacturing process by adding an automated vertical winder which may use either an atomized application tip or a non-atomized application tip.

Proposed Permit

Permit 1740-00014-V4 will be a renewal/modification of Part 70 operating permit 1740-00014-V3 for Pentair Pump Group Inc – Delta Environmental Products.

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Permitted Air Emissions

Estimated emissions in tons per year are as follows:

Pollutant	Before	After	Change
PM_{10}	1.97	1.01	-0.96
SO_2	-	-	
NO_X	-	-	
CO	-	-	
VOC	52.41	42.87	-9.54

VOC LAC 33:III Chapter 51 Toxic Air Pollutants (TAPs):

Pollutant	Before	After	Change
Ethylbenzene	0.50	0.15	-0.35
Methanol	0.28	0.09	-0.19
Styrene	48.16	41.32	-6.84
Xylene	2.98	0.90	-2.08
Total TAPs	51.92	42.46	-9.46

IV REGULATORY ANALYSIS

The applicability of the appropriate regulations is straightforward and provided in the Specific Requirements section of the proposed permit. Similarly, the Monitoring, Reporting and Recordkeeping necessary to demonstrate compliance with the applicable terms, conditions and standards are also provided in the Specific Requirements section of the proposed permit.

Prevention of Significant Deterioration/Nonattainment Review

The facility and the changes proposed do not constitute an increase that would meet the definition of Major Stationary Source and thus PSD does not apply.

MACT Requirements

Toxic air pollutants emitted from this facility include styrene, methanol and xylene. This facility is a major source of Toxic Air Pollutants (TAPs) per LAC 33:III.Chapter 51. Styrene is a class II toxic air pollutant for which a State Maximum Achievable Control Technology (MACT) is required (LAC 33:III.5109).

The facility is subject to 40 CFR 63 Subpart WWWW - National Emissions Standards of Hazardous Air Pollutants: Reinforced Plastic Composites Production, and shall comply with its applicable requirements.

Air Quality Analysis

Emissions associated with the proposed modification were reviewed by the Air Quality Assessment Division to ensure compliance with the NAAQS and AAS. LDEQ did not require the applicant to model emissions.

General Condition XVII Activities

The facility will comply with the applicable General Condition XVII Activities emissions as required by the operating permit rule. However, General Condition XVII Activities are not subject to testing, monitoring, reporting or recordkeeping requirements. For a list of approved General Condition XVII Activities, refer to the Section VIII – General Condition XVII Activities of the proposed permit.

Insignificant Activities

All Insignificant Activities are authorized under LAC 33:III.501.B.5. For a list of approved Insignificant Activities, refer to the Section IX – Insignificant Activities of the proposed permit.

V. PERMIT SHIELD

A permit shield was not requested.

VI. PERIODIC MONITORING

There are no specific conditions that require periodic monitoring. All periodic monitoring is conducted in accordance with state and federal regulations. See monitoring requirements under Specific Requirements.

Pentair Pump Group Inc – Delta Environmental Products monitors fiberglass throughput, styrene emissions, and gelcoat and resin usage.

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VII. Applicability and Exemptions of Selected Subject Items		
ID No:	Requirement	Notes
EQT 1 Fiberglass Resin Storage Tank	NSPS Subpart Ka – Standards of Performance for Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commences after May 18, 1978, and Prior to July 23, 1984. [40 CFR 60.110a]	DOES NOT APPLY. Storage tank does not store petroleum liquids (Diesel No. 2 to No. 6 fuel are not petroleum liquids per 40CFR 60.111a Definitions).
	NSPS Subpart Kb – Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced after July 23, 1984. [40 CFR 60.110b]	EXEMPT. The stored Commodity's vapor pressure is less than 1.5 psia.
	LAC 33:III.2103.A	DOES NOT APPLY. The resin has a true vapor pressure of less than 1.5psia.
UNF1 Entire Facility	Compliance Assurance Monitoring.[40 CFR 64]	DOES NOT APPLY. No control device.
	Chemical Accident Prevention Provisions. [40 CFR 68]	DOES NOT APPLY. Styrene is not one of the 77 regulated substances.

I. Streamlined Requirements			
Unit or Plant Site	**Programs Being Streamlined**	**Stream Applicability**	**Overall Most Stringent Program**
UNF1 Entire Facility	None	-	-

VII. GLOSSARY

Carbon Monoxide (CO) – A colorless, odorless gas, which is an oxide of carbon.

Maximum Achievable Control Technology (MACT) – The maximum degree of reduction in emissions of each air pollutant subject to LAC 33:III.Chapter 51 (including a prohibition on such emissions, where achievable) that the administrative authority, upon review of submitted MACT compliance plans and other relevant information and taking into consideration the cost of achieving such emission reduction, as well as any non-air-quality health and environmental impacts and energy requirements, determines is achievable through application of measures, processes, methods, systems, or techniques.

Hydrogen Sulfide (H_2S) – A colorless inflammable gas having the characteristic odor of rotten eggs, and found in many mineral springs. It is produced by the reaction of acids on metallic sulfides, and is an important chemical reagent.

New Source Review (NSR) – A preconstruction review and permitting program applicable to new or modified major stationary sources of air pollutants regulated under the Clean Air Act (CAA). NSR is required by Parts C ("Prevention of Significant Deterioration of Air Quality") and D ("Nonattainment New Source Review").

Nitrogen Oxides (NO_X) – Compounds whose molecules consist of nitrogen and oxygen.

Organic Compound – Any compound of carbon and another element. Examples: Methane (CH_4), Ethane (C_2H_6), Carbon Disulfide (CS_2)

Part 70 Operating Permit – Also referred to as a Title V permit, required for major sources as defined in 40 CFR 70 and LAC 33:III.507. Major sources include, but are not limited to, sources which have the potential to emit: $\geq$ 10 tons per year of any toxic air pollutant; $\geq$ 25 tons of total toxic air pollutants; and $\geq$ 100 tons per year of regulated pollutants (unless regulated solely under 112(r) of the Clean Air Act) (25 tons per year for sources in non-attainment parishes).

PM_{10} – Particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers as measured by the method in Title 40, Code of Federal Regulations, Part 50, Appendix J.

Potential to Emit (PTE) – The maximum capacity of a stationary source to emit any air pollutant under its physical and operational design.

Prevention of Significant Deterioration (PSD) – A New Source Review permitting program for major sources in geographic areas that meet the National Ambient Air Quality Standards (NAAQS) at 40 CFR Part 50. PSD requirements are designed to ensure that the air quality in attainment areas will not degrade.

Sulfur Dioxide (SO_2) – An oxide of sulfur.

Sulfuric Acid (H_2SO_4) – A highly corrosive, dense oily liquid. It is a regulated toxic air pollutant under LAC 33:III.Chapter 51.

Title V Permit – See Part 70 Operating Permit.

Volatile Organic Compound (VOC) – Any organic compound, which participates in atmospheric photochemical reactions; that is, any organic compound other than those, which the administrator of the U.S. Environmental Protection Agency designates as having negligible photochemical reactivity.